

REMARKS

Applicants hereby traverse the outstanding objections and rejections, and request reconsideration and withdrawal in light of the remarks contained herein. Claims 7, 9, 14, 15, and 19 have been amended to correct typographical errors. Claims 1-19 are pending in this application.

I. Claim Objections

Claims 7, 14, and 19 are amended to correct a typographical error by replacing the term “equal” with the term “equal to,” as suggested by the Examiner. Accordingly, no new matter is presented. Moreover, the correction of this typographical error is not intended to narrow the scope of the claims.

Claim 9 is amended to correct a typographical error by replacing the term “replacing for” with the term “replacing.” Accordingly, no new matter is presented. Moreover, the correction of this typographical error is not intended to narrow the scope of the claim.

Claim 15 is amended to correct a typographical error by replacing the term “an memory” with the term “a memory,” as suggested by the Examiner. Accordingly, no new matter is presented. Moreover, the correction of this typographical error is not intended to narrow the scope of the claim.

II. Claim Rejections under 35 U.S.C. § 103(a)

A. Rejections over *Toshiaki* in view of *Fujimoto*

Claims 1-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Toshiaki et al.* (‘212, hereinafter *Toshiaki*) in view of *Fujimoto* (‘055, hereinafter *Fujimoto*).

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P.

§ 2143. Without conceding the first or second criteria, Applicants assert that the rejection does not satisfy the third criteria.

Lack of Claimed Limitations

The Office Action admits that *Toshiaki* does not teach inhibiting subsequent repairing of the group of N elements. The Office Action attempts to cure this deficiency by relying on *Fujimoto*, which the Office Action alleges to teach having such an element. However, *Fujimoto* does not teach, at least, this claimed limitation. Therefore, this combination of references, as presented, does not teach or suggest all limitations of the claimed invention.

Claim 1 requires “inhibiting subsequent repairing of the group of N elements.” *Toshiaki* does not disclose, at least, this limitation. Claim 30 of *Toshiaki* teaches inhibiting a normal word line from being accessed. However, this is not the same limitation as the claimed limitation. No other section of *Toshiaki* provides a similar teaching to that of the claimed limitation. *Fujimoto* does not teach this limitation either. Instead, *Fujimoto* teaches a write inhibit flag to inhibit a write in a fault cell so that a fault cell portion can be avoided as a memory cell. See column 5, lines 65-67, and column 6, lines 1-2, 7-19. However, inhibiting a write in a fault cell or inhibiting access to a normal word line is not the same as “inhibiting subsequent repairing,” as required by claim 1. No other section of *Fujimoto* provides a similar teaching to that of the claimed limitation. Thus, the combination of *Toshiaki* and *Fujimoto* does not teach or even suggest all of the limitations of claim 1. Therefore, the Applicants respectfully assert that, for the above reasons, claim 1 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Claim 1 also requires “repairing a group of N elements of the plurality of elements, wherein N is greater than one and the group of N elements includes the element.” The Office Action does not discuss which of *Toshiaki* or *Fujimoto* teaches this limitation. Applicants believe that neither *Toshiaki* nor *Fujimoto* teaches this limitation. Thus, the combination of *Toshiaki* and *Fujimoto* does not teach or even suggest all of the claimed limitations. Therefore, the Applicants respectfully assert that, for the above reasons, claim 1 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Claim 9 requires “means for inhibiting subsequent operation of the means for replacing the elements of the group of N elements.” *Toshiaki* does not disclose, at least, this limitation. Claim 30 of *Toshiaki* teaches inhibiting a normal word line from being accessed. However, this is not the same limitation as the claimed limitation. No other section of *Toshiaki* provides a similar teaching to that of the claimed limitation. *Fujimoto* does not teach this limitation either. Instead, *Fujimoto* teaches a write inhibit flag to inhibit a write in a fault cell so that a fault cell portion can be avoided as a memory cell. See column 5, lines 65-67, and column 6, lines 1-2, 7-19. However, inhibiting a write in a fault cell or inhibiting access to a normal word line is not the same as “inhibiting subsequent repairing,” as required by claim 1. No other section of *Fujimoto* provides a similar teaching to that of the claimed limitation. Thus, the combination of *Toshiaki* and *Fujimoto* does not teach or even suggest all of the limitations of claim 9. Therefore, the Applicants respectfully assert that, for the above reasons, claim 9 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Claim 9 also requires “means for replacing a group of N elements of the plurality of elements with replacement elements, wherein N is greater than one and the group of N elements includes the one element.” The Office Action does not discuss which of *Toshiaki* or *Fujimoto* teaches this limitation. Applicants believe that neither *Toshiaki* nor *Fujimoto* teaches this limitation. Thus, the combination of *Toshiaki* and *Fujimoto* does not teach all of the claimed limitations. Therefore, the Applicants respectfully assert that for the above reasons claim 1 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Claims 2-8 and 10-14 depend from base claims 1 and 9, respectively, and thus inherit all limitations of their respective base claims. Each of claims 2-8 and 10-14 sets forth features and limitations not recited by the combination of *Toshiaki* and *Fujimoto*. Thus, the Applicants respectfully assert that, for the above reasons, claims 2-8 and 10-14 are patentable over the 35 U.S.C. § 103(a) rejection of record.

B. Rejections over *Maeda* in view of *Fujimoto*

Claims 15-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Maeda* (‘408) in view of *Fujimoto* (‘055, hereinafter *Fujimoto*).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P. § 2143. Without conceding the first or second criteria, Applicants assert that the rejection does not satisfy the third criteria.

Lack of Claimed Limitations

The Office Action admits that *Maeda* does not teach having inhibit circuitry. The Office Action attempts to cure this deficiency by introducing *Fujimoto*, which the Office Action alleges to teach having such an element. However, *Fujimoto* does not teach at least this claimed limitation. Therefore, this combination of references, as presented, does not teach or suggest all limitations of the claimed invention.

Claim 15 requires “inhibit circuitry that prevents the repair logic from subsequently operating on the group of N elements.” The Office Action admits that *Maeda* does not teach this limitation. *Fujimoto* does not teach this limitation either. Instead, *Fujimoto* teaches a write inhibit flag to inhibit a write in a fault cell so that a fault cell portion can be avoided as a memory cell. See column 5, lines 65-67, and column 6, lines 1-2, 7-19. However, this is not the same limitation as the claimed limitation. No other section of *Fujimoto* provides a similar teaching to that of the claimed limitation. Thus, the combination of *Maeda* and *Fujimoto* does not teach or even suggest all of the claimed limitations. Therefore, the Applicants respectfully assert that, for the above reasons, claim 15 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Claim 15 also requires “repair logic that repairs a group of N elements of the plurality of memory elements, wherein N is greater than one, and the group of N elements includes the portion.” The Office Action does not discuss which of *Maeda* and *Fujimoto* teaches this limitation. Applicants believe that neither *Maeda* nor *Fujimoto* teaches this limitation. Thus, the combination of *Maeda* and *Fujimoto* does not teach or even suggest all of the claimed

limitations. Therefore, the Applicants respectfully assert that, for the above reasons, claim 15 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Claims 18 and 19 depend from base claim 15, and thus inherit all limitations of claim 15. Each of claims 18 and 19 sets forth features and limitations not recited by the combination of *Maeda* and *Fujimoto*. Thus, the Applicants respectfully assert that, for the above reasons, claims 18 and 19 are patentable over the 35 U.S.C. § 103(a) rejection of record.


In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge Deposit Account No. 08-2025, under Order No. 10004547-1, from which the undersigned is authorized to draw.

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Date of Deposit: February 4, 2005

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